

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-2 (Canceled).

Claim 3 (Currently Amended): An information reproducing method for reproducing a representative picture recorded on an information ~~disc~~ recording medium, said information recording ~~disc-including, medium comprising~~:

a pair of transparent substrates;

an adhesive layer;

a center hole going through the transparent substrates;

a clamp area being located on an outer circumference side of the center hole;

a recording layer being provided on a surface of one of the transparent substrates;

a managing file in which management information is stored, and

an A/V file in which at least one of audio and video information is stored,

at least one object is recorded in said A/V file, said at least one object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

a lead-in area being on the recording layer;

a data area being located on circumference sides of the lead-in area and being on the recording layer;

a first area, on the data area, being configured to store a managing file including management information; and

a second area, on the data area, being configured to store a video file including video information,

wherein at least one video object is recorded in said video file, said video object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

said management information includes original program chain information including a plurality of cell information representing cells respectively, at least one cell, and a video manager information management table including disc representative picture information for a disc representative picture,

said video manager information management table is provided in another hierarchically preceding area relative to said original program chain information and includes a start address of said original program chain information,

said original program chain information designates respective cell reproduction ~~orders~~ order, said ~~at least one cell~~ of said cells refers to whole of said ~~at least one video~~ object,

said disc representative picture information includes information regarding a program chain number, a cell number, a picture point as a presentation time of ~~a picture representing recording contents of the disc~~ said disc representative picture, and information regarding a time when the disc representative picture information was made, and

said disc representative picture ~~is a picture existing~~ exists in a cell identified by said cell number,

the information reproducing method comprising:

reading said management information;

referring to said disc representative picture information; and

reading and decoding said disk representative picture.

Claim 4 (Currently Amended): An information reproducing apparatus reproducing a representative picture recorded on an information dise ~~recording medium~~, said information recording ~~dise including medium~~ comprising:

a pair of transparent substrates;

an adhesive layer;

a center hole going through the transparent substrates;

a clamp area being located on an outer circumference side of the center hole;

a recording layer being provided on a surface of one of the transparent substrates;

a managing file in which management information is stored, and

an A/V file in which at least one of audio and video information is stored,

at least one object is recorded in said A/V file, said at least one object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

a lead-in area being on the recording layer;

a data area being located on circumference sides of the lead-in area and being on the recording layer;

a first area, on the data area, being configured to store a managing file including management information; and

a second area, on the data area, being configured to store a video file including video information,

wherein at least one video object is recorded in said video file, said video object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

said management information includes original program chain information including a plurality of cell information representing at least one cell, cells respectively, and a video

manager information management table including disc representative picture information for a disc representative picture,

said video manager information management table is provided in another hierarchically preceding area relative to said original program chain information and includes a start address of said original program chain information,

said original program chain information designates respective cell reproduction ~~orders~~ order, said ~~at least one cell of said cells~~ of said cells refers to whole of said ~~at least one video~~ video object,

said disc representative picture information includes information regarding a program chain number, a cell number, a picture point as a presentation time of ~~a picture representing recording contents of the disc~~ said disc representative picture, and information regarding a time when the disc representative picture information was made, and

said disc representative picture ~~is a picture existing~~ exists in a cell identified by said cell number,

the information reproducing apparatus comprising:

a first reproducer for reproducing said management information [[,]] and for referring to said disc representative picture information, and

a second reproducer and a decoder for decoding said disc representative picture.

Claim 5 (Currently Amended): An information recording method for recording a representative picture on an information ~~disc~~ recording medium,

said information recording ~~disc including~~ medium comprising:

a pair of transparent substrates;

an adhesive layer;

a center hole going through the transparent substrates;

a clamp area being located on an outer circumference side of the center hole;
a recording layer being provided on a surface of one of the transparent substrates;
a managing file in which management information is stored, and
an A/V file in which at least one of audio and video information is stored,
at least one object is recorded in said A/V file, said at least one object including
object units, each of said object units including at least one of a video pack in which video
data is recorded and an audio pack in which audio data is recorded,
a lead-in area being on the recording layer;
a data area being located on circumference sides of the lead-in area and being on the
recording layer;
a first area, on the data area, being configured to store a managing file including
management information; and
a second area, on the data area, being configured to store a video file including video
information,
wherein at least one video object is recorded in said video file, said video object
including object units, each of said object units including at least one of a video pack in
which video data is recorded and an audio pack in which audio data is recorded,
said management information includes original program chain information including
a plurality of cell information representing at least one cell cells respectively, and a video
manager information management table including disc representative picture information for
a disc representative picture,
said video manager information management table is provided in another
hierarchically preceding area relative to said original program chain information and includes
a start address of said original program chain information,

said original program chain information designates respective cell reproduction orders order, said ~~at least one cell~~ one of said cells refers to whole of said ~~at least at least one~~ video object,

said disc representative picture information includes information regarding a program chain number, a cell number, a picture point as a presentation time of a ~~picture~~ representing recording contents of the disc said disc representative picture, and information regarding a time when the disc representative picture information[[.]] was made, and

said disc representative picture ~~is a picture existing~~ exists in a cell identified by said cell number,

the information recording method comprising:

generating said disc representative picture information; and

recording said video file and said management information including said disc representative picture information.

Claim 6 (Currently Amended): An information recording apparatus for recording a representative picture on an information ~~disc~~ recording medium,

said information recording ~~disc including~~ medium comprising:

a pair of transparent substrates;

an adhesive layer;

a center hole going through the transparent substrates;

a clamp area being located on an outer circumference side of the center hole;

a recording layer being provided on a surface of one of the transparent substrates;

~~a managing file in which management information is stored, and~~

~~an A/V file in which at least one of audio and video information is stored,~~

at least one object is recorded in said A/V file, said at least one object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

a lead-in area being on the recording layer;

a data area being located on circumference sides of the lead-in area and being on the recording layer;

a first area, on the data area, being configured to store a managing file including management information; and

a second area, on the data area, being configured to store a video file including video information,

wherein at least one video object is recorded in said video file, said video object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

said management information includes original program chain information including a plurality of cell information representing at least one cell respectively, and a video manager information management table including disc representative picture information for a disc representative picture,

said video manager information management table is provided in another hierarchically preceding area relative to said original program chain information and includes a start address of said original program chain information,

said original program chain information designates respective cell reproduction orders order, said at least one cell of said cells refers to whole of said at least one video object,

said disc representative picture information includes information regarding a program chain number, a cell number, a picture point as a presentation time of a ~~picture~~

~~representing recording contents of the disc~~ said disc representative picture, and information regarding a time when the disc representative picture information was made, and

said disc representative picture ~~is a picture existing~~ exists in a cell identified by said cell number,

the information recording apparatus comprising:

a first processor generating said disc representative picture information; and

a second processor for recording said video file and said management information including said disc representative picture information.

Claim 7 (Currently Amended). An information recording ~~disc~~ medium configured to have data recorded thereon and data being reproduced therefrom by an information recording/reproducing apparatus, ~~the disc~~ said information recording medium comprising:

a pair of transparent substrates;

an adhesive layer;

a center hole going through the transparent substrates;

a clamp area being located on an outer circumference side of the center hole;

a recording layer being provided on a surface of one of the transparent substrates;

a managing file in which management information is stored; and

an A/V file in which at least one of audio and video information is stored;

at least one object is recorded in said A/V file; said at least one object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded;

a lead-in area being on the recording layer;

a data area being located on circumference sides of the lead-in area and being on the recording layer;

a first area, on the data area, being configured to store a managing file including management information; and

a second area, on the data area, being configured to store a video file including video information,

wherein at least one video object is recorded in said video file, said video object including object units, each of said object units including at least one of a video pack in which video data is recorded and an audio pack in which audio data is recorded,

said management information includes original program chain information including a plurality of cell information representing at least one cell cells respectively, and a video manager information management table including disc representative picture information for a disc representative picture,

said video manager information management table is provided in another hierarchically preceding area relative to said original program chain information and includes a start address of said original program chain information,

said original program chain information designates respective cell reproduction orders order, said at least one cell of said cells refers to whole of said at least one object,

said disc representative picture information includes information regarding a program chain number, a cell number, a picture point as a presentation time of ~~a picture representing recording contents of the disc~~ said disc representative picture, and information regarding a time when the disc representative picture information was made, and

said disc representative picture ~~is a picture existing~~ exists in a cell identified by said cell number;

~~wherein the management information is provided to control recording, playing back, or editing the A/V file by the information recording/reproducing apparatus, the A/V file is accessed according to the management information.~~